UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 4, 2015

U.S. Army Corps of Engineers
Sacramento District
Attention: Anne Baker
1325 J Street
Sacramento, California 95814-2922

Subject: American River Watershed Common Features General Reevaluation Report Draft Environmental Impact Statement/Environmental Impact Report, Sacramento and Yolo Counties, California [CEQ #20150071]

Dear Ms. Baker:

The U.S. Environmental Protection Agency has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act, the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500 - 1508, and our review authority under Section 309 of the Clean Air Act.

The Draft Environmental Impact Statement evaluates alternatives to provide flood risk management to the city of Sacramento by improving the levees that surround the city. The Tentatively Selected Plan -- Alternative 2-Sacramento Bypass and Improve Levees -- appears to be the least environmentally damaging alternative as it results in less riparian habitat removal along the Sacramento River and creates additional floodplain acreage. EPA has rated the Tentatively Selected Plan and the Draft EIS as EC-2 -- Environmental Concerns-Insufficient Information" (see Enclosure 1: "Summary of EPA Rating Definitions").

Our concerns are based on the need for remediation of the Old Bryte Landfill in the proposed Sacramento Bypass expansion area, as well as the potential for construction emissions to contribute to violations of the National Ambient Air Quality Standard for oxides of nitrogen (NOx). We recommend that the Final EIS include additional information on cleanup plans for the landfill. We also recommend that, if NOx emissions would exceed the *de minimis* threshold under the Tentatively Selected Plan, the Final EIS demonstrate that the project would conform to the State Implementation Plan and include a draft conformity determination. Furthermore, we recommend that the Final EIS include additional information regarding wetlands and riparian habitat, climate change, mitigation measures, and the project's ability to meet flood protection levels required by California Senate Bill 5. Please see the enclosed detailed comments (Enclosure 2) for additional concerns and recommendations.

We appreciate the opportunity to review this Draft EIS. Please send one hard copy and one CD of the Final EIS to this office (mailcode ENF-4-2) when it is officially filed with EPA's *e-NEPA*. If you have

any questions, please call me at (415) 972-3521 or contact Jeanne Geselbracht, our lead NEPA reviewer for this project, at geselbracht.jeanne@epa.gov or (415) 972-3853.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures:
(1) Summary of EPA Rating Definitions
(2) EPA's detailed comments on the American River Watershed Common Features Draft EIS

cc: Erin Brehmer, Central Valley Flood Protection Board
Peter Buck, Sacramento Area Flood Control Agency
Howard Hold, Central Valley Regional Water Quality Control Board

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE AMERICAN RIVER WATERSHED COMMON FEATURES PROJECT, CALIFORNIA – MAY 2015

Hazardous Materials

The Old Bryte Landfill is located immediately adjacent to the land side of the northern levee of the Sacramento Bypass and the eastern levee of the Yolo Bypass Flood Channel. This landfill area would become part of the expanded Sacramento Bypass floodway when the existing northern Sacramento Bypass levee is removed and relocated 1,200 feet farther north. The Draft Environmental Impact Statement (p. 272) states that the landfill would be completely remediated in accordance with Federal, State, and local laws by the non-federal partner prior to construction.

The Old Bryte Landfill is the subject of a Preliminary Assessment Report prepared for the EPA in February 2012. According to the Preliminary Assessment Report (p. 8), sampling results showed the presence of elevated levels of lead, zinc, dioxins, and polychlorinated biphenyls (PCB). Lead was detected in all samples at concentrations ranging from 13 milligrams per kilogram (mg/kg) to 22,000 mg/kg. The average lead concentration of 4,285 mg/kg exceeded the Total Threshold Limit Concentration (TTLC) of 1,000 mg/kg. The average Waste Extraction Test (WET) concentration for lead of 64 milligrams per liter (mg/L) exceeded the Soluble Threshold Limit Concentration (STLC) of 5.0 mg/L. Zinc was detected in one soil sample at 17,000 mg/kg, exceeding the TTLC of 5,000 mg/kg. PCBs were detected in five soil samples ranging from 0.50 to 0.98 mg/kg. Dioxins were detected in one soil sample at 0.14 mg/kg. TTLC and STLC are used for hazardous waste characterization under California State regulations. Trench logs indicate an overall waste depth from ground surface to 13 feet with an average waste depth ranging from 5.9 to 7.2 feet, and the estimated volume of the waste is approximately 127,107 cubic yards. In 2001, the California Integrated Waste Management Board concluded that the burn ash material would likely be classified as a California hazardous waste if it were to be excavated for disposal.

The Draft EIS neither describes how the landfill would be remediated and the materials disposed, nor identifies applicable cleanup standards, confirmation testing, or agencies responsible for overseeing the remediation before the weir construction and bypass expansion can be completed.

Recommendation: Include the above information in the Final EIS.

Air Quality

EPA's guidance on General Conformity applicability analyses states, "the Federal agency can take measures to reduce its emissions from the proposed action to in fact below *de minimis* levels and, thus, the rule would not apply. The changes must be State or Federally enforceable to guarantee that emissions would be below *de minimis* in the future."[1] The Draft EIS is unclear regarding the assumptions, including the enforceability of emissions controls, that were factored into the emissions estimates for the truck delivery scenario and the barge delivery scenario under the project alternatives.

Table 31 of the Draft EIS indicates that Year 2 total oxides of nitrogen (NOx) emissions would exceed the *de minimis* General Conformity threshold for the Sacramento Area under the barge delivery scenario. In addition, Table 30 indicates that, under the truck delivery scenario, NOx emissions would

[1] General Conformity Guidance: Questions and Answers (Response to Question 29), July 13, 1994 http://www.epa.gov/air/genconform/documents/gcgqa_940713.pdf

be less than, but quite close to, the *de minimis* threshold. The Draft EIS (pp. 196 and 199) states that, with the implementation of the Sacramento Metropolitan Air Quality Management District's Enhanced Exhaust Control Practices for off-road equipment and using only on-road heavy-duty diesel trucks or equipment that comply with EPA 2007 on-road emission standards, annual construction emissions would be reduced to below *de minimis* thresholds. It appears, however, that the emissions estimates in tables 30 and 31 already account for emission reductions from these measures, since the methodology section (Draft EIS, p. 188) indicates that the air quality emissions analysis was based, in part, on an assumption that "all project plans and specifications will require that construction contractors use only off-road equipment that implements the SMAQMD Enhanced Exhaust Control Practices and only use on-road hauling equipment that was manufactured in 2010, or later."

In addition, the Draft EIS implies that a 20 percent reduction in NOx from off-road equipment, relative to the emissions provided in tables 30 and 31, would be applied to the project. The SMAQMD Enhanced Exhaust Control Practices for off-road equipment require demonstrating that the heavy-duty off-road vehicles will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction *compared to the most recent California Air Resources Board fleet average*. It is unclear what assumptions for fleet averages were used in the emissions analyses, and whether the 20 percent NOx reduction mentioned on pp. 194 and 198 is in reference to, or in addition to, this Enhanced Exhaust Control Practice.

The Draft EIS (p. 202) states that the use of Tier 3 and Tier 4 standards for newly built marine engines would be encouraged under the barge delivery scenario. The Draft EIS (p. 202) also states that, under the barge delivery scenario, off-road diesel-powered construction equipment greater than 50 horsepower shall meet Tier 4 off-road emission standards at a minimum, and on-road heavy-duty diesel trucks or equipment with a GVWR of 19,500 pounds or greater shall comply with EPA 2007 on-road emission standards for PM and NOx.

Recommendations:

- In preparing the Final EIS, please consult with Tom Kelly, EPA Region 9 Air Division, on the requirements of EPA's General Conformity Rule. He can be reached at (415) 972-3856 or kelly.thomasp@epa.gov.
- Clarify in the Final EIS the measures and assumptions that were factored into the emissions estimates in tables 30 and 31, and provide any recalculations if needed.
- Clarify the mechanisms that would be used to ensure that emissions reductions are enforceable (e.g., included in contract specifications?) and achievable.
- Estimate in the Final EIS the additional emission reductions that would accrue to each scenario with application of all enforceable mitigation measures. If NOx emissions would exceed the *de minimis* threshold under the Tentatively Selected Plan, we recommend that the Final EIS include a draft conformity determination and demonstrate that the project would conform to the State Implementation Plan.
- We encourage the use of marine engines meeting EPA's Tier 4 emissions standards for the barge delivery scenario, on-road trucks meeting EPA's 2007 emission standards for the truck delivery scenario, and off-road construction equipment meeting EPA's 2014 emissions standards, to the extent possible for both of these scenarios.
- In the Final EIS, correct the following informational errors that appear in the Air Quality sections of the Draft EIS:

- Table 25 identifies a 24-hour sulfur dioxide National Ambient Air Quality Standard. On August 23, 2010, EPA revoked the 24-hour sulfur dioxide standard.
- Table 26 and p. 185, bullet 2: On October 28, 2013, the Sacramento PM10 nonattainment area was redesignated as an attainment area with an EPA-approved maintenance plan.
- Tables 28 and 31: The *de minimis* threshold for volatile organic compounds in the Bay Area Air Basin is 100 tons per year rather than 50 tons per year.

Flood Protection Level

The General Reevaluation Report (GRR, p. 2-3) identifies the California Senate Bill 5 requirement for urban areas to achieve a 200-year level of flood protection, and notes concern that improvements under the Federal plan might not achieve this standard. Table 3-19 of the GRR indicates that the American River South portion of the project would not meet this standard under the Tentatively Selected Alternative. We were unable to find a discussion in the Draft EIS of the requirements of SB 5 or of whether and how each alternative would meet its requirements. We also note that the list of significance thresholds for hydrology and hydraulics impacts (Draft EIS, p. 78), which is based on the environmental checklist in the California Environmental Quality Act Guidelines, does not include the project's ability to meet SB 5. The Council on Environmental Quality's regulations for implementing the National Environmental Policy Act require that EISs address possible conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for the area concerned.

> **Recommendation:** We recommend that the Final EIS discuss whether and how each alternative would meet SB 5, including a description of any additional measures that would be needed to meet the standard and identification of the parties responsible for implementing and funding them.

According to the Draft EIS (p. 102), operation of the new weir and Sacramento Bypass will be determined after construction is complete. It is unclear what this information would entail and why it is not described in the EIS.

> **Recommendation:** We recommend that the Final EIS describe operation of the new weir and expanded Sacramento Bypass, and any potential additional impacts associated with operations not already discussed in the Draft EIS.

Vegetation

The Draft EIS (p. 49) states that lands within the extended Sacramento Bypass could be used to compensate for some of the trees being removed from the levees, and that a hydraulic analysis would need to be done to determine to what extent planting could occur. Elsewhere (p. 97), the Draft EIS states that detailed wetland surveys in the bypass will be done prior to construction. These analyses are also needed for determination and disclosure of the anticipated effectiveness of mitigation opportunities in the bypass and whether additional offsite mitigation sites may be necessary to compensate for project-related losses of riparian and wetland habitat.

> **Recommendation:** We recommend that the Final EIS discuss the results of the hydraulic evaluation and wetland survey in the expanded Sacramento Bypass area, including available

resources and opportunities to compensate for riparian and wetland habitat losses there, and the effectiveness of such compensation. If additional compensation areas would be needed, the Final EIS should identify those areas and the acreages needed.

Climate Change

The Draft EIS (p. 213) states, "project-wide GHG emissions would be well below the BAAQMD's GHG threshold of 10,000 MT CO2e per year, indicating that project-generated GHG emissions would not contribute to climate change." While the project-generated greenhouse gas emissions of approximately 3,400 metric tons of carbon dioxide equivalent emissions per year (Draft EIS, Table 34) are well below the Bay Area Air Quality Management District's GHG threshold, it is not accurate to indicate that the project-generated GHG emissions would not contribute to climate change, as all GHG emissions do contribute to climate change. Please note that, on December 18, 2014, the Council on Environmental Quality (CEQ) released revised draft guidance for public comment, which describes how Federal departments and agencies should consider the effects of greenhouse gas emissions and climate change in their NEPA reviews, and specifically addresses incremental contributions to climate change. As noted in the draft guidance,

> "CEQ recognizes that many agency NEPA analyses to date have concluded that GHG emissions from an individual agency action will have small, if any, potential climate change effects. Government action occurs incrementally, program-by-program and step-by-step, and climate impacts are not attributable to any single action, but are exacerbated by a series of smaller decisions, including decisions made by the government."

Recommendation: We recommend that the conclusion regarding the project's contribution to climate change be revised to indicate that all GHG emissions contribute to climate change.